Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1.-32. (Cancelled).

33.   (Currently Amended) A tunnel communication managing method for controlling tunnel communication, by using an access apparatus for controlling the tunnel communication performed between a data processing apparatus and at least one other data processing apparatus, comprising:

a sustain data demand receiving step, in which the access apparatus receives a demand for sustain data transmitted from the data processing apparatus in order to sustain the tunnel communication between performed by both the data processing apparatus and the other data processing apparatus;

a sustain data demand transmitting step, in which the access apparatus transmits the received demand for sustain data to a tunnel managing apparatus connected to the access apparatus through a communication line;

a sustain data receiving step, in which the access apparatus receives a sustain data transmitted from the tunnel managing apparatus in response to the demand for sustain data; and

a sustain data transmitting step, in which the access apparatus transmits the sustain data to the data processing apparatus,

wherein the sustain data received by the data processing apparatus indicates a connection time for the tunnel communication between , and is used by the data processing apparatus and the other data processing apparatusto perform tunnel communication with the other data processing apparatus exclusive of the access apparatus.

34.   (Previously Presented)   A tunnel communication managing method according to claim 33, wherein the sustain data is used for the data processing apparatus to judge whether to cancel the tunnel communication or not.

35.   (Previously Presented)   A tunnel communication managing method according to claim 33, further comprising:

a tunnel control data receiving step, in which the access apparatus receives tunnel control data transmitted from the data processing apparatus;

a tunnel communication data modification judging step, in which the access apparatus judges whether to modify the tunnel communication data or not; and

a tunnel control data transmitting step, in which the access apparatus transmits the tunnel control data to the tunnel managing apparatus, in the case where it judged that the tunnel communication data should be modified.

36.   (Previously Presented)   A tunnel communication managing method according to claim 33, further comprising:

a tunnel control data receiving step, in which the access apparatus receives tunnel control data transmitted from a data processing apparatus other than the data processing apparatus;

a tunnel communication data modification judging step, in which the access apparatus judges whether to modify the tunnel communication data or not; and

a tunnel control data transmitting step, in which the access apparatus transmits the tunnel control data to the tunnel managing apparatus, in the case where it judged that the tunnel communication data should be modified.

37.   (Previously Presented)   A tunnel communication managing method according to claim 33, wherein the tunnel communication data indicates at least one of a data regarding the tunnel communication allow/disallow flag, a data regarding time of the tunnel communication, and a data regarding charging of the tunnel communication.

38.   (Previously Presented) A tunnel communication managing method according to claim 33, wherein the access apparatus executes the sustain data demand receiving step at prescribed time intervals.

39.   (Previously Presented) A tunnel communication managing method according to claim 33, further comprising:

an identifier registration step of registering identifier, in which the access apparatus identifies at least one of the addresses of tunnel communication, to be performed by the data processing apparatus and the data processing apparatus concerned, before executing the sustain data demand receiving step.

40.   (Previously Presented) A tunnel communication managing method according to claim 36, wherein the tunnel communication data modification judging step judges if the identifier for identifying the different data processing apparatus is registered in advance in the access apparatus or not and, in the case where such identifier is registered, executes the tunnel control data transmitting step.

41.   (Previously Presented) A tunnel communication managing method according to claim 33, wherein the tunnel communication data is controlled by the tunnel managing apparatus, and is used for controlling the tunnel communication.

42.   (Currently Amended) An access apparatus for controlling tunnel communication performed between a data processing apparatus and at least one other data processing apparatus, comprising;

a sustain data demand receiver for receiving a demand for sustain data transmitted from the data processing apparatus in order to sustain the tunnel communication between performed by both the data processing apparatus and the other data processing apparatus;

a sustain data demand transmitter for transmitting the received demand for sustain data to a tunnel managing apparatus connected to the access apparatus through a communication line;

a sustain data receiver for receiving a sustain data transmitted from the tunnel managing apparatus in response to the demand for sustain data; and

a sustain data transmitter for transmitting the sustain data to the data processing apparatus,

wherein the sustain data received by the data processing apparatus indicates a connection time for the tunnel communication ~~between~~, and is used by the data processing apparatus ~~and the other data processing apparatus~~ to perform tunnel communication with the other data processing apparatus exclusive of the access apparatus.

43.   (Previously Presented) An access apparatus according to claim 42, wherein the sustain data is used for the data processing apparatus to judge whether to cancel the tunnel communication or not.

44.   (Previously Presented) An access apparatus according to claim 42, further comprising:

a tunnel control data receiving unit for receiving tunnel control data transmitted from the data processing apparatus;

a tunnel communication data modification judging unit for judging whether to modify the tunnel communication data or not; and

a tunnel control data transmitting unit for transmitting the tunnel control data to the tunnel managing apparatus, in the case where it judged that the tunnel communication data should be modified.

45.   (Previously Presented) An access apparatus according to claim 42, further comprising:

a tunnel control data receiving unit for receiving tunnel control data transmitted from a data processing apparatus other than the data processing apparatus;

a tunnel communication data modification judging unit for judging whether to modify the tunnel communication data or not; and

a tunnel control data transmitting unit for transmitting the tunnel control data to the tunnel managing apparatus, in the case where it judged that the tunnel communication data should be modified.

46.   (Previously Presented)   An access apparatus according to claim 42, wherein the tunnel communication data indicates at least one of a data regarding the tunnel communication allow/disallow flag, a data regarding time of the tunnel communication, and a data regarding charging of the tunnel communication.

47.   (Previously Presented)   An access apparatus according to claim 42, wherein the sustain data demand receiver receives the demand for sustain data from the data processing apparatus at prescribed time intervals.

48.   (Previously Presented)   An access apparatus according to claim 42, further comprising:

a communication controlling unit holding identifier for identifying at least one of the addresses of tunnel communication to be performed by the data processing apparatus and the data processing apparatus concerned.

49.   (Previously Presented)   An access apparatus according to claim 45, wherein the tunnel communication data modifying unit judges if the identifier for identifying the different data processing apparatus is registered in advance in the access apparatus or not and, in the case where such identifier is registered, transmits the tunnel control data to the tunnel managing apparatus.

50.   (Previously Presented)   An access apparatus according to claim 42, wherein the tunnel communication data is controlled by the tunnel managing apparatus, and is used for controlling the tunnel communication.

51.   (Currently Amended)   A communication system comprising a tunnel managing apparatus and an access apparatus controlling tunnel communication

performed ~~between~~ by both a data processing apparatus and at least one other data
processing apparatus,

    wherein

    the access apparatus comprises:

        a first demand receiver for receiving a demand for transmission of
sustain data transmitted from the data processing apparatus in order
to sustain the tunnel communication ~~between~~ performed by both the
data processing apparatus and the other data processing apparatus;

        a demand transmitter for transmitting the received demand for
transmission concerned to the tunnel managing apparatus, in the case
where the first demand receiver received the demand for transmission;

        a sustain data receiver for receiving the sustain data transmitted from
the tunnel managing apparatus in response to the demand for sustain
data; and

        a first sustain data transmitter for transmitting the sustain data
concerned to the data processing apparatus, in the case where the
sustain data receiver received the sustain data; while

    the tunnel managing apparatus comprises:

        a tunnel communication data controller for controlling tunnel
communication data regarding the tunnel communication;

        a second demand receiver for receiving the demand for transmission
transmitted from the access apparatus; and

        a second sustain data transmitter for transmitting the sustain data to
the access apparatus based on the tunnel communication data, in the
case where the second demand receiver received the demand for
transmission,

wherein the sustain data received by the data processing apparatus indicates a connection time for the tunnel communication ~~between~~, and is used by the data processing apparatus ~~and the other data processing apparatus~~to perform tunnel communication with the other data processing apparatus exclusive of the access apparatus.

52.   (Previously Presented)   A communication system according to claim 51, wherein the tunnel communication data indicates at least one of a data regarding the tunnel communication allow/disallow flag, a data regarding time of the tunnel communication, and a data regarding charging of the tunnel communication.

53.   (Previously Presented)   A communication system according to claim 51,

wherein

the access apparatus further comprises:

a control data receiving unit for receiving tunnel control data regarding control of the tunnel communication from the data processing apparatus; and

a control data transmitting unit for transmitting the control data concerned to the tunnel managing apparatus, in the case where the control data receiving unit received the tunnel control data; while

the tunnel managing apparatus further comprises:

a control data receiving unit for receiving the tunnel control data transmitted from the access apparatus; and

a data modifying unit for modifying the tunnel communication data controlled by the tunnel communication data controlling unit, based on the tunnel control data.

54.   (Previously Presented)   A communication system according to claim 51,

wherein

the access apparatus further comprises:

a modification judging unit for judging whether to modify the tunnel communication data or not, based on the tunnel control data concerned, in the case where the control data receiving unit received the tunnel control data from the data processing apparatus; while

the control data transmitting unit transmits the tunnel control data to the tunnel managing apparatus, in the case where the modification judging unit judged that the tunnel communication data should be modified.

55.   (Previously Presented)   A communication system according to claim 51, wherein the tunnel control data is a data demanding modification of time when the data processing apparatus can perform the tunnel communication.

56.   (Previously Presented)   An access apparatus according to claim 43, wherein the tunnel communication data indicates at least one of a data regarding the tunnel communication allow/disallow flag, a data regarding time of the tunnel communication, and a data regarding charging of the tunnel communication.

57.   (Previously Presented)   An access apparatus according to claim 44, wherein the tunnel communication data indicates at least one of a data regarding the tunnel communication allow/disallow flag, a data regarding time of the tunnel communication, and a data regarding charging of the tunnel communication.

58.   (Previously Presented)   An access apparatus according to claim 45, wherein the tunnel communication data indicates at least one of a data regarding the tunnel communication allow/disallow flag, a data regarding time of the tunnel communication, and a data regarding charging of the tunnel communication.

59.   (Previously Presented)   The tunnel communication managing method of claim 33,

wherein the sustain data indicates:

a) a tunnel communication allow/disallow flag for indicating whether the tunnel communication is allowed or not; or

b) a charge information for indicating a cost to be charged for tunnel communication.